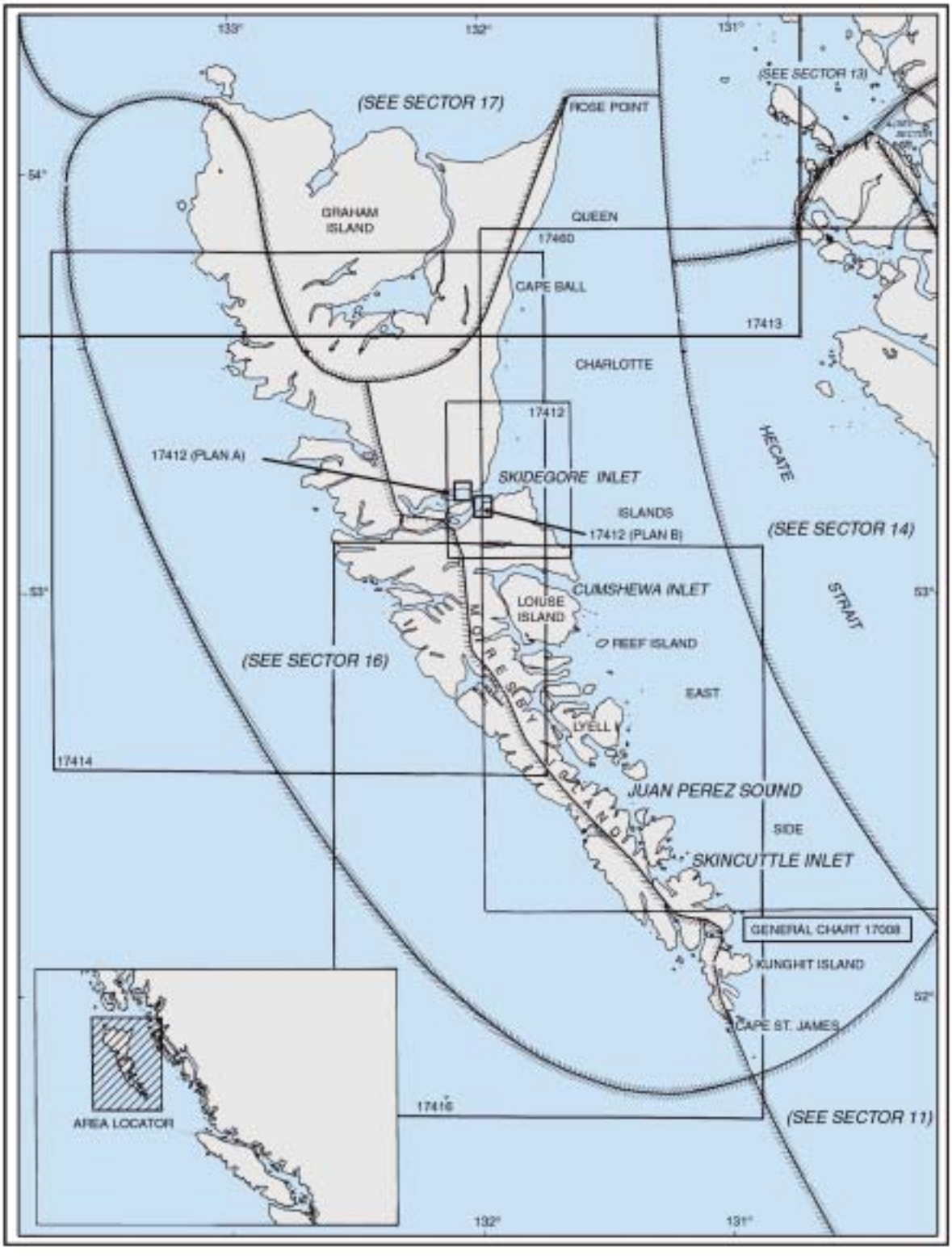
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **15** — CHART INFORMATION

Table of Contents

SECTOR 15

THE QUEEN CHARLOTTE ISLANDS—EAST COAST

Plan.—This sector describes the E side of the Queen Charlotte Islands, including Skincuttle Inlet, Juan Perez Sound, Darwin Sound, Laskeek Bay, Cumshewa Inlet, and Skidegate Inlet.

General Remarks

15.1 The Queen Charlotte Islands consist of three principal islands, namely Kunghit Island, Moresby Island, and Graham Island. Graham Island, the northernmost, is the largest and Kunghit Island, the southernmost, is the smallest.

These islands form a compact archipelago lying between 51˚50'N and 54˚15'N, and 130˚54'W and 133˚10'W.

Houston Stewart Channel (see paragraph 16.3) and Skidegate Channel (see paragraph 16.19) separate the three principal islands. The former lies between Kunghit Island and Moresby Island and the latter lies between Moresby Island and Graham Island.

Winds—Weather.—Winds on the E coast of Queen Charlotte Islands predominate from the SE year around. There are numerous calms averaging about 30 percent of the time, but during winter the local squalls, which are known as williways, can cause problems to vessels at an anchorage.

Tides—Currents.—The tidal currents at the entrance of Skincuttle Inlet in the vicinity of Ikeda Point, Joyce Rocks, New England Rocks, and the Copper Islands attain a rate of up to 3 knots. The flood sets N and the ebb sets in the opposite direction. The turn of the tide takes place abruptly with virtually no slack water.

Eddies occur frequently between New England Rocks and the Cooper Islands. Heavy tide rips sometimes occur S of Cape St. James and over Gray Rock.

Between Cape St. James and Ramsey Island, the tidal currents turn abruptly with practically no slack water.

The flood and ebb currents, in the vicinity of Garcin Rocks, set N and S, respectively, at a rate of 1 to 3 knots. They are accompanied at times by considerable turbulence, particularly during spring tides.

Overfalls occur between Garcin Rocks and Benjamin Point and may be dangerous to small craft. They form quickly with the wind in opposition to the tidal currents. In this locality, the currents attain a rate of up to 4 knots.

The tidal currents in the N approach to Skidegate Inlet set N or S. They attain a rate of up to 3 knots on the spring flood. Outside Spit Point, the flood current sets NW and the ebb current SE.

The flood current sets up Juan Perez Sound from the S into the various inlets, and then E through Richardson and Logan Inlets. The ebb current sets in the reverse manner. The currents in the fairway abreast Shuttle Island attain a rate of 2 knots.

Regulations.—The waters described in this sector lie within the Prince Rupert Vessel Traffic Zone. For further information, see General Remarks in paragraph 11.1.

Canadian modifications to 72 COLREGS are applied in waters under Canadian jurisdictions. See Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and Southeast Asia for further information.

The South Islands

15.2 Kunghit Island (52˚03'N., 131˚02'W.), the E part of which is described in this sector, is the southernmost of the main Queen Charlotte Islands. It attains a height of 454m about 2 miles NW of the S extremity and continues to rise gradually to a height of 546m in the NW part. This island is the first land to be sighted in clear weather when approaching the Queen Charlotte Islands from S. It can safely be approached with care from the NE or E to within 3 or 4 miles of the coast. The E coast of the island is bold and in many places bordered by steep cliffs.

Cape St. James (51˚56'N., 131˚01'W.), which is located close S of Kunghit Island, is the S extremity of St. James Island. This island is saddle-shaped, bare, and grassy. The N hummock is wooded and the S hummock is 85m high. A vertical cliff, 31m high, stands at the S extremity of the S hummock. A light is shown from a tower standing on the cape; several other towers, which make up a weather station, are nearby, and two white buildings stand close to it.

Photo copyright Mike Mitchell

Cape St. James Light and Weather Station

The Kerouard Islands consist of two groups of islands, islets, and rocks. They form a chain which extends about 2.5 miles SSE from Cape St. James. Some of the islands and islets are

white and bare. The northwesternmost and southeasternmost groups attain heights up to 81m and are conspicuous. Some of the islets have rounded tops and vertical cliffs on all sides. The smaller ones have a pillar-like formation. The islands serve as breeding places for numerous sea birds and sea lions.

Gray Rock, with a depth of less than 1.8m, is an off-lying danger. It lies isolated about 6 miles SSE of Cape St. James. There are heavy tide rips over this rock and the sea breaks moderately on it during periods of moderate swell.

The E coast of Kunghit Island between the S extremity of Kunghit Island and Ballard Point, 2 miles N, is indented by Woodruff Bay. The N and S shores of this bay are rugged and fringed with drying rocky ledges. An extensive sandy beach is located at the head of the bay. The bay is free of dangers, except for a small compact group of above-water rocks, surrounded by a drying rocky ledge, lying about 0.1 mile off the N shore. The depths within the bay gradually shoal towards its head.

Anchorage, partially sheltered from W winds, is available within Woodruff Bay.

Howe Bay, lying on the N side of Ballard Point, and Luxana Bay, located farther N, are separated by a narrow peninsula. This peninsula is 3 miles long and Annis Point forms its SE extremity. An islet, with a small rock lying close NE, is located about 0.3 mile NE of this point.

Howe Bay and Luxana Bay both afford shelter from W winds, but they are seldom free of swells. Anchorage can be taken in either bay in depths of 18 to 27m.

15.3 Prevost Point (52˚06'N., 120˚57'W.), the NE extremity of Kunghit Island, is located about 1 mile NNW of Lyman Point. Gull Islet, small and wooded, lies close N of the point and is joined to it by a rocky ledge, which dries 3m. A rock, awash, and a rock, which dries 1.2m, lie close off the N end of the islet.

Keeweenah Bay, lying close W of Gull Islet, can be used by vessels up to about 45m in length. Anchorage can be taken in a depth of 20m about 0.1 mile E of Marshall Island, which is located in the middle of the bay.

Montserrat Bay, entered close W of Jenkins Point, lies 0.8 mile WNW of Gull Islet. It is too deep for satisfactory anchorage, except close to the head where small craft can proceed. A rock, with a depth of 9.1m, lies in the approach to this bay, almost midway between Jenkins Point and the NE extremity of the Rainy Islands.

Rainy Islands, consisting of four principal islands, form a chain which extends between 0.3 mile and 0.7 mile NE of Blackburn Point. Some of the islands are wooded and fringed by above and below-water rocks. These islands form the NW part of Montserrat Bay.

Gull Banks lie between 0.4 mile and 1.5 miles NW of Gull Islet. A shoal patch, with a depth of 10.7m, lies about 1 mile N of Jenkins Point and is the least depth in the vicinity of the banks.

Grant Bank extends about 0.5 mile NW from the Rainy Islands and Blackburn Point.

Christian Rock, with a least depth of 2.7m, lies on the N side of the bank, about 0.8 mile N of Blackburn Point. Germania Rock, 5.5m high and bare, lies near the W end of Grant Bank, about 0.3 mile S of the SE extremity of High Island.

High Island is 177m high, wooded, and conspicuous from NE. It lies on the N side of the approach to Heater Harbor, about 0.8 mile NNW of Blackburn Point.

Heater Harbor (52˚07'N., 131˚02'W.), the westernmost inlet of the group within Gull Islet, is entered between Orion Point, on the N side, and Gaowina Point, to the S. This inlet has an inner basin about 0.5 mile wide, which forms an excellent anchorage for vessels that can safely enter. It also provides good shelter on most occasions.

The harbor is secure from all winds, except those from the E. Violent downward gusts or williwaws occur in this harbor during S gales, as well as other harbors within the Queen Charlotte Islands.

Vessels approaching the harbor should steer a course of about 240˚ for the SE extremity of High Island until the N extremity of the island bears 270˚. Then the course should be altered to pass about 0.2 mile off the SE extremity of High Island. A mid-channel course can then be steered toward the anchorage.

Vessels with moderate drafts proceeding from the SE may steer to pass about 0.1 mile off the Rainy Islands and Germania Rock. They may then maintain a mid-channel course for the anchorage.

Anchorage can be taken in depths of 20 to 27m, mud, within Heater Harbor, about 0.4 mile from the head.

Balcom Inlet is entered close W of Blackburn Point, about 0.8 mile ESE of Gaowina Point. This inlet extends about 0.8 mile S, where it is divided into two arms by Larson Point. Depths within this inlet are suitable for anchorage; however, it is not recommended because strong winds from the SE and SW quadrants, often accompanied by williwaws, funnel down the valley at the head causing violent yawing.

Moore Head to Point Langford

15.4 Moore Head (52˚09'N., 131˚03'W.), the NE extremity of Kunghit Island and the S entrance point of Houston Stewart Channel, is moderately steep-to and may be approached to within 0.2 mile.

Haydon Rock, 6.4m high, lies on the S side of the E approach to Houston Stewart Channel, about 0.7 mile ESE of Moore Head and about 0.4 mile offshore. A rock, with a depth of less than 1.8m, lies about 0.2 mile ENE of Haydon Rock and midway between them lies a rock which dries 1.5m. A shoal, with a depth of 6.4m, lies about 0.2 mile WNW of Haydon Rock.

Point Langford, the N entrance point of the E entrance to Houston Stewart Channel, is located about 1 mile NNE of Moore Head. Langford Shoals, with a least depth of 8.2m, extend up to 0.6 mile SSE of the point and are marked by kelp.

Benjamin Point (52˚13'N., 131˚00'W.), the E extremity of Moresby Island, is located about 3.5 miles NNE of Point Langford, the SE extremity of the island. It is a small promontory surrounded by an area of rocks and foul ground. This area extends up to about 0.4 mile SE from the shore and is bordered by extensive kelp.

Garcin Rocks (52˚13'N., 130˚58'W.), located about 1.3 miles ESE of Benjamin Point, consist of three large and conspicuous rocks, up to 15m high. These rocks are closely

Return to paragraph 16.4

grouped and, together with numerous other drying and below-water rocks, form a reef which is about 0.5 mile long and 0.2 mile wide. A light is shown from the S end of the middle of the three large Garcin Rocks.

Huff Rock, 3m high and bare, lies about 0.9 mile off the coast of Moresby Island, about 0.8 mile NNW of Garcin Rocks. This rock is surrounded by foul ground, which, on its SW side, extends about 0.4 mile seaward. The foul ground terminates in a rock, which dries 1.2m. A great amount of kelp exists on this foul ground during summer and autumn.

Langtry Island, sparsely wooded and 49m high, lies about 2 miles NW of Garcin Rocks. This island is surrounded by reefs and rocks which extend up to 0.3 mile N and 0.1 mile S of it.

Caution.—The inshore passage leading W of Garcin Rocks, Huff Rocks, and Langtry Island is subject to considerable tide rips, eddies, and overfalls and should not be attempted without local knowledge.

15.5 Carpenter Bay (52˚14'N., 131˚03'W.), which recedes about 5 miles in a general W direction, is entered between Ingraham Point, located 0.9 mile W of Langtry Island, and Iron Point, 2.3 miles NW.

The bay is 1.3 miles wide in the vicinity of Kiju Point, located 2.5 miles W of Ingraham Point. However, farther W, in the vicinity of Hancock Point and 1.5 miles WNW of Kiju Point, it narrows to a width of 0.6 mile. The head of the bay is encumbered by numerous islands and rocks, above and below-water.

South Cove is available to small craft with local knowledge. A rocky ledge extends about 0.2 mile N from the W entrance point of this cove. A rock, 1.5m high, lies on this ledge. Several rocks, which dry 1.2m, lie close off the extremity of the same point.

Strong winds from the SE and SW quadrants funnel through the valley in the S shore from Rose Inlet. The numerous above-mentioned dangers, combined with these strong winds, render anchorage within Carpenter Bay unsafe.

The tidal currents within the bay are regular and attain a rate of up to 2 knots in the outer part, decreasing to 1 knot towards the head.

The Rankine Islands, two in number, are wooded and lie on the N side of the approach to Carpenter Bay. The SW end of the westernmost island lies about 1 mile NE of Iron Point. Within 0.2 mile of the N extremity of the westernmost island are three above-water rocks, the outermost of which is 5.8m high. There is also a rock which dries 4.6m. Both islands are fronted by foul ground.

Oliver Rock, 1.2m high, lies about 0.8 mile N of the westernmost island. Other rocks, which dry 0.3 to 0.9m, lie between 0.3 mile and 0.5 mile S of Oliver Rock with extensive kelp in the vicinity.

Numerous dangers lie in the entrance to and within Carpenter Bay and may best be seen on the chart.

A rock, awash, lies about 0.6 mile NE of Kiju Point. It is marked by kelp and breaks occasionally. A shoal patch, with a depth of 9.5m, lies about 0.4 mile farther NE and is also marked by kelp.

A rock, with a depth of 5.2m and marked by kelp, lies about 0.5 mile E of Iron Point. A shoal, with a depth of 11.9m and marked by kelp, lies about 0.5 mile SSW of the same point.

A rock, with a depth of 6.7m, lies about 0.8 mile NW of Kiju Point.

Crowell Rock, which dries 4.3m, and a rock, with a depth of less than 1.8m, lie nearly in mid-channel, about 0.4 mile NE of Hancock Point. Another rock, with a depth of 4m and marked by kelp, lies about 0.3 mile E of Crowell Rock.

Samuel Rock, 3.7m high, lies about 0.3 mile off the N shore of Carpenter Bay to which it is joined by a drying ridge of rocks, 1.5 miles W of Iron Point. A drying shoal, with rocks which dry 0.6 to 3.4m along its outer edge, extends up to about 0.1 mile seaward between Samuel Rock and the shore to the NE. A rock, which dries 2.7m, lies about 0.1 mile W of Samuel Islet.

Two wooded islets, 27m and 40m high, lie within 0.2 mile N of Hancock Point.

15.6 Goodwin Point (52˚17'N., 131˚05'W.), the S entrance point of Collinson Bay, is a low, bluff, but rises rapidly a short distance inland. Goodwin Rock, 4m high and bare, lies about 0.8 mile E of the point and is generally steep-to.

Marion Rock, 3m high and bare, lies close off the entrance to Collinson Bay, about 0.6 mile W of Goodwin Point. A rock, which dries 5.5m, lies in the fairway of the entrance to Collinson Bay, about 0.3 mile W of Marion Rock. Two rocks, which dry 0.6m and 3.7m, lie off the SE shore of Collinson Bay, about 0.3 mile and 0.7 mile, respectively, SW of Marion Rock.

The Nest Islets, two in number, lie close together. The larger islet is wooded and the other is covered with scrub growth. They lie between 0.5 mile and 0.7 mile WNW of Marion Rock. A wooded island lies close off the W shore of the bay, about 0.2 mile WSW of Nest Islets. A rock, 2.7m high, lies close S of this island. The passage leading between the island and the Nest Islets is deep and free of dangers. Another wooded island, connected to the shore by a drying rocky ledge, is located off the SE shore of the bay, about 0.4 mile from its head. There is no suitable anchorage in Collison Bay.

Ikeda Cove is a narrow inlet entered between Awaya Point, located 2.5 miles NW of Goodwin Point, and Ikeda Point, 0.2 mile N.

Small vessels with local knowledge can anchor in the inner part of this cove, but care is necessary as S and SE gales cause heavy squalls and turbulence in the entrance.

Approaches to Skincuttle Inlet

15.7 Copper Islands (52˚21'N., 131˚10'W.), consisting of five principal wooded islands and numerous islets and rocks, form a chain which extends up to 0.9 mile E of Pelican Point, the SE extremity of Burnaby Island. East Copper Island, 78m high, is the easternmost island of the group and forms a good landmark in the approach. A light is shown from the SE extremity of this island, but it is obscured on some bearings.

The main passage leading into Skincuttle Inlet is about 1 mile wide between East Copper Island and the dangers lying SE. It is marked and is the most used. The general trend of the fairway is SW and there are no sharp turns within the entrance.

Joyce Rocks, a compact group of five, lie about 1.8 miles SE of the light on East Copper Island. They are bare and up to 8.2m high.

New England Rocks, two in number, lie close together and dry up to 0.9m. They are located about 0.8 mile NW of Joyce Rocks and a buoy is moored about 0.4 mile NW. A rock, with a depth of 2.1m, lies about 0.1 mile S of them.

Two shoals, with a least depth of 7.9m, lie about 0.6 mile E of New England Rocks and are marked by kelp in summer and autumn. Bishop Rock, 1m high and bare, is located almost midway between Deluge Point and Joyce Rocks, about 0.8 mile S of New England Rocks. A rock, which dries 1.2m, lies close E of this rock.

Inner Low Rock, 5m high and bare, lies about 0.5 mile NW of Ikeda Point. A reef extends 0.2 mile N from Inner Low Rock and terminates in a rock with a depth of 2m. Farther W, a rock, which dries 0.3m, and another rock, with a depth of 4.3m, lie about 0.1 mile N and 0.3 mile NW, respectively, of Deluge Point.

The tidal currents in the approach and in the general vicinity of Ikeda Point, Joyce Rocks, New England Rocks, and the Copper Islands attain a rate of up to 3 knots. The flood current sets N and the ebb sets in the opposite direction. The turn of the tide takes place abruptly with virtually no slack water.

Eddies occur frequently between New England Rocks and the Copper Islands.

The Northern Passage into Skincuttle Inlet, located NW of Copper Islands, has a minimum width of 0.3 mile between the rocks that extend from Pelican Point, on Burnaby Island, and Rock Islet, the westernmost islet of the Copper Islands. It is bordered by numerous dangers and local knowledge is necessary.

Caution.—A local magnetic anomaly has been reported to exist between Pelican Point and Rock Islet.

Skincuttle Inlet

15.8 Deluge Point (52˚20'N., 131˚10'W.), the S entrance point of Skincuttle Inlet, is located about 4 miles SE of Poole Point, the N entrance point. The entrance is encumbered by the Copper Islands and numerous dangerous rocks.

A shoal, with a depth of 11.9m, lies about 0.6 mile SE of Poole Point and several more shoal patches, with depths of 10.4 to 12.8m, extend in a WSW direction from it toward the shore.

Bolkus Islands consist of one large island, 79m high; several small islands; and numerous rocks and reefs. This group lies in the middle of Skincuttle Inlet and extends between 0.9 mile and 2.8 miles E of Smithe Point, the S extremity of Burnaby Island. Foul ground, on which lie several drying and below-water rocks, extends up to about 0.3 mile S from the westernmost and largest of the Bolkus Islands. Numerous shoals lie in the vicinity of this group.

Elswa Rock, which dries 2.4m, lies nearly in the middle of the passage leading S of the Bolkus Islands, about 0.8 mile N of Kankidas Point. A rock, with a least depth of 7.3m, lies about 0.2 mile ENE of Elswa Rock. Another rock, with a depth of 6.1m, lies about 0.4 mile WSW of Elswa Rock and about the same distance NE of Bush Rock.

Large vessels and vessels from the NE should steer to round the dangers lying off East Copper Island at a distance of about 0.3 mile and then set a course for Harriet Harbor or Huston Inlet.

Vessels with moderate drafts proceeding from the SE may steer for East Copper Island Light in order to pass between Joyce Rocks and Bishop Rock. They may then alter course to the W to intersect the headings for Harriet Harbor or Huston Inlet.

15.9 Harriet Harbor (52˚18'N., 131˚13'W.), lying on the S side of Skincuttle Inlet, is entered between Funter Point, located 2 miles SW of Deluge Point, and Jedway Point, about 0.6 mile W. Harriet Island, 45m high and wooded, is located in the middle of the entrance to the harbor. This island is surrounded by a drying bank and a drying spit extends about 0.2 mile SE from it. The island is not conspicuous as its colors blend into the high background, but some oil tanks can be seen when the harbor becomes visible. There are depths in the harbor, to the SE of Harriet Island, of 5.5 to 12.8m.

Bush Rock, 5m high, is covered with sparse scrub on its summit. This rock lies about 0.2 mile N of the northernmost of two islands, 67m and 69m high, which form a large part of the W side of Jedway Bay and the NE side of Huston Inlet. Numerous rocks lie between Bush Rock and the above islands.

Low Black Rock is located 1 mile SSW of the W extremity of the Bolkus Islands. This rock is 0.6m high and another rock, which dries 0.3m, lies close NE of it. Numerous shoals extend S from this rock into Huston Inlet.

Huston Inlet is entered between Bush Rock and Huston Point, 1 mile W. This inlet recedes 3.5 miles SE. Boulder Island lies about 0.6 mile within the entrance and about 0.2 mile off the W shore. Sea Pigeon Island lies about 0.4 mile farther SE. Green Rock, 3.4m high and grass covered, is located in the middle of the inlet, about 0.3 mile E of Boulder Island.

Swan Islands consist of one large island, two small islands, and several islets and rocks. They extend between 0.4 mile and 1.3 miles ENE of Smithe Point, the S extremity of Burnaby Island. The passage leading between these islands and the westernmost of the Bolkus Islands is free of dangers, with the exception of a shoal, with a least depth of 8.5m, located about 0.3 mile SW of the S extremity of the largest of the Swan Islands. Swan Bay, lying N of the Swan Islands, is too exposed to SE winds for satisfactory anchorage, although there are depths of 3 to 29m within it.

Anchorage for vessels about 60m and under can be taken in a depth of 12m, sand and mud, in the middle of the harbor, about 0.3 mile SSE of Harriet Island. Anchorage can also be taken in a depth of 22m, mud, about 0.5 mile from the head of Huston Inlet. Small vessels can anchor in shallower depths nearer the head of the inlet, but care must be taken to avoid the numerous dangers, especially along the W shore. Heavy squalls from the valley at the head of Huston Inlet may be expected during S gales.

Caution.—Care is necessary in determining a safe anchorage, because the head of the harbor is subjected to heavy squalls from the valley during strong S gales.

Abnormal magnetic variation has been reported to occur in the vicinity of Harriet Harbor.

Burnaby Strait

15.10 Burnaby Strait (52˚19'N., 131˚20'W.), the S end of which is entered W of Smithe Point, leads N between Burnaby Island and Moresby Island. It extends for 9 miles from Skincuttle Inlet to Juan Perez Sound.

The strait, from its S entrance to the N end of Dolomite Narrows, is narrow and encumbered by numerous rocks and a drying bank. It can be navigated only at HW by small craft with local knowledge. From the N end of Dolomite Narrows, the strait abruptly broadens to a width of more than 1 mile as it continues N towards Juan Perez Sound.

The tidal currents in Burnaby Strait, from limited observations, are indicated to be very irregular in both direction and strength. They vary appreciably with spring and neap tides and also with weather conditions in Hecate Strait. The currents are relatively weak and seldom exceed a rate of more than 1.5 knots within Dolomite Narrows.

Dolomite Narrows, at its narrowest part, is a little less than 0.1 mile wide between the HW lines on either side. The S entrance to the narrows lies about 2 miles N of the S entrance to Burnaby Strait. The narrows completely dry at LW near the S end. Near the middle of the drying area are two above-water rocks, 0.3m and 0.9m high, with numerous other rocks which dry 1.5 to 4m, lying N and S. Numerous scattered boulders also lie on this drying area.

15.11 Poole Point (52˚22'N., 131˚15'W.), the SE extremity of Burnaby Island, is formed by a conspicuous white, granite crag. It is backed by low land that rises gradually inland.

Rebecca Point, located 1.5 miles WNW of Poole Point, is the N extremity of a peninsula. This peninsula is 120m high and separates Francis Bay and Poole Inlet. The N and NE sides of the peninsula are fringed with rocky ledges extending up to about 0.1 mile offshore. Several rocks, 0.3 to 1.5m high, lie on these rocky ledges.

A large rock, the highest part of which dries 1.2m, lies about 0.2 mile NE of Rebecca Point. Foul ground lies between the point and the rock. A shoal, with a least depth of 10.1m, lies about 0.4 mile N of Rebecca Point.

Poole Inlet, entered W of Rebecca Point, extends about 2 miles in a SW direction. The shores on both sides of the inlet are generally rugged and indented with above-water and drying rocks lying close offshore in places. The fairway is obstructed by a group of islets and rocks lying about 0.7 mile within the entrance. A passage, about 0.1 mile wide and suitable only for small vessels, lies on the NW side of this group. Depths within the inlet, N of the above-mentioned group of islets and rocks, vary from 13 to 24m. Depths of 20m lie S of the group and gradually shoal to a depth of 9m near the head.

Howay Island, 88m high and wooded, lies with its SW extremity located 0.8 mile NE of Rebecca Point. Its shores are moderately steep-to. The passage lying on the NW side of the island is deep and free of dangers.

The E shore of Burnaby Island, to the N of Howay Island, is fringed with drying rocky ledges which extend up to about 0.1 mile offshore. Several above-water rocks lie on these ledges. This coast is free of off-lying dangers, with the exception of a rock, which dries 0.9m, lying about 0.2 mile offshore and about 1 mile S of Scudder Point.

Juan Perez Sound—South Side

15.12 Scudder Point (52˚27'N., 131˚14'W.), the NE extremity of Burnaby Island and the S entrance point of Juan Perez Sound, has a drying rocky ledge extending about 0.2 mile NE from it. Several detached rocks, which dry 0.6 to 3.7m, lie up about 0.2 mile farther NE. A wide stretch of comparatively low land extends back from this point with an open growth of large but gnarled spruces.

Scudder Point, from which a light is shown, should not be closely approached because of the numerous rocky ledges lying NE and NW of it.

Juan Perez Sound extends about 12 miles in a general NW direction. It is about 6.5 miles wide at the entrance which lies between Burnaby Island and Ramsay Island. Several smaller inlets and bays branch off from this sound. Darwin Sound, the continuation to the NNW, is about 13 miles long.

The tidal currents at Scudder Point are very irregular, both in direction and strength. Rates of up to 3 knots have been encountered. The wind direction and force appear to affect the rate considerably. Some turbulence can be expected in the vicinity of Scudder Point and overfalls have been encountered on the shoal areas lying about 4 miles E.

The tidal currents become quite regular and attain rates up to 1 knot within the confines of Juan Perez Sound. The flood current and ebb current set to the NW and SE, respectively.

The currents are quite regular, with rates of up to 1 knot, along the shore of Ramsay Island and in the passages NW.

Saw Reef is a large drying rocky patch with several above-water heads, the highest of which dries 1.2m. This reef lies with its N extremity located about 0.3 mile offshore, nearly 2 miles W of Scudder Point.

Alder Island, wooded and nearly flat, lies with its S extremity located about 0.3 mile off the N shore of Burnaby Island, about 1 mile W of Saw Reef. A small wooded islet and a rock, 3.7m high, lie about 0.1 mile off the N side and about 0.2 mile off the NW extremity, respectively, of Alder Island. Rocks, which dry 1.5 to 4.3m, lie within 0.2 mile N of this wooded islet.

The passage lying S of Alder Island should be used only by small craft with local knowledge.

Huxley Island lies close off the NW point of Burnaby Island with its S extremity located 0.6 mile N of Section Island. Huxley Island is bold and conspicuous, rising steeply from the beach on its E side to a height of 434m.

Several shoal patches, with a least depth of 5.9m, lie within 0.5 mile of the E shore of Huxley Island. A rock, 1m high, lies close off the NW extremity of the island and several drying rocks lie within 0.1 mile SE of it.

Arichika Island, 84m high and wooded, lies about 0.5 mile off the NE extremity of Huxley Island. Arichika Shoal, with a least depth of 4.3m, lies about 0.5 mile NW of Arichika Island. Monument Rock, 23m high, is bare and resembles a pillar. It is located nearly midway between the shoal and the N extremity of Huxley Island. Two rocks, which dry about 5m, lie close SE of it.

Burnaby Strait, the N part of which lies W of Huxley Island and Burnaby Island, is entered between the NW extremity of Huxley Island and Newberry Point, 1.8 miles WNW. It is navigable for about 6 miles to the S before being blocked by

Dolomite Narrows, which as stated before, is available only to small craft at HW. Wanderer, Park, and Kat Islands, along with numerous islets, lie in this part of the strait. Rocks, with depths of 2m or less, lie within about 0.2 mile of the shore of Burnaby Island on the E side of the fairway.

Wanderer Island, 142m high and wooded, lies with its S extremity located 0.3 mile NNE of Wanderer Point. Center Island, 49m high, lies 0.1 mile off the SE extremity of Wanderer Island.

Nomad Islet, wooded and 75m high, lies close NE of Wanderer Point to which it is connected by a drying shoal. A narrow passage, available to small craft, separates this island from the S extremity of Wanderer Island.

Park Island, 53m high and wooded, is separated from the N side of Wanderer Island by a passage about 0.3 mile wide. This passage has a least depth of 7.3m.

Sels Islet, 49m high, lies about 0.8 mile SSW of Park Island. Its S extremity lies about 0.2 mile NW of a small promontory which projects from the W side of Wanderer Island.

A rocky ledge, on which lie two above-water rocks, fronts the NW side of Sels Islet. A shoal, with a least depth of 7.6m, lies about 0.3 mile NW of Sels Islet.

15.13 Skaat Harbor (52˚25'N., 131˚25'W.), entered W of Park Island, extends SW between high mountains for about 1.5 miles from Wanderer Point.

Haida Rock, awash, lies about 0.2 mile off the W shore of Skaat Harbor, about 0.5 mile SW of the S end of Sels Islet.

A group of rocks, which dry from 0.6 to 5.5m, lie within 0.1 mile N of an islet located close off the E shore, about 0.5 mile from the head of Skaat Harbor. A small islet and three rocks, which dry 0.3 to 5.5m, fringe the SW shore, near the head of the harbor. Vessels can anchor in depths of 22 to 24m, generally mud, about 0.2 mile W of the small promontory lying on the W side of Wanderer Island. Anchorage for vessels up to 76m in length is available in depths of 20 to 22m, mud, about 0.6 mile from the head of the harbor. Smaller vessels can anchor in shallower depths, closer inshore.

The anchorage at the head of the harbor provides the best shelter from all but N winds.

Vessels entering the harbor should proceed W of Park Island and then between Sels Islet and Haida Rock.

Limestone Rock, which dries 2.4m, lies about 0.7 mile E of Wanderer Point, the N extremity of the peninsula separating Burnaby Strait from Skaat Harbor. A rock, which dries 0.9m, lies close SE of Limestone Rock.

Kat Island, 75m high and wooded, lies with its N extremity located about 1.8 miles SSE of Wanderer Island. An island, which is connected to the W shore by a drying shoal, lies between this island and the W entrance point of Island Bay. Another small island, 56m high, lies close off the NW extremity of Kat Island to which it is connected by a drying shoal. Several rocks, which dry 0.9 to 3m, lie close off the N side of Kat Island and extend up to about 0.5 mile NW of it.

The passage lying on the W side of Kat Island is foul and should not be attempted.

Island Bay, entered S of Kat Island, extends about 2 miles SW from its entrance. The entrance is obstructed by several small islands and numerous rocks, above and below-water. Entry into the bay can be made only to the W of these obstructions via a narrow and tortuous passage for which local knowledge is required. The head of the bay is encumbered with several islets and rocks.

Juan Perez Sound (continued)

15.14 All Alone Stone (52˚29'N., 131˚24'W.), a dome-shaped wooded island, is 37m high and lies about 1.8 miles NW of the N extremity of Huxley Island. It is steep-to, conspicuous, and forms a good landmark for entry into the N end of Burnaby Strait. The channels lying on each side of All Alone Stone are clear of dangers, except for a dangerous below-water rock located close N of it.

Werner Bay lies on the SW side of the sound between Newberry Point and Werner Point, 2.3 miles NW. It is open to the NE and has a least depth of 16.5m in the entrance.

Newberry Cove, lying close W of Newberry Point, provides temporary anchorage to small vessels in a depth of 31m.

Matheson and Marshall Inlets, two narrow bodies of water, extend in a SW direction from the head of Werner Bay and are available to small craft with local knowledge. The two inlets are separated by a hilly peninsula, of which Gottlob Point is the NE extremity. Marshall Inlet is partially blocked at its entrance by several shoals and a rock that dries.

Marco Island lies with its W extremity located about 0.2 mile N of the E entrance point of Hutton Inlet, which is described below. Marco Rock, 7.9m high, lies about 0.2 mile E of the E end of Marco Island. A drying reef extends about 0.2 mile NW from the rock.

The narrow passage lying S of Marco Island is partially obstructed by numerous shoals and requires local knowledge.

Hutton Inlet, available to small craft with local knowledge, is entered between the W end of Marco Island and Hutton Point. It extends SW for 3 miles. Hutton Island, from which a shallow spit extends N for 0.2 mile, lies in the middle of the entrance to Hutton Inlet. A rock, which dries 4.3m, is located at the N extremity of the spit. Several islets and rocks obstruct the passage lying SE of the island. The inlet narrows about 1 mile within its entrance to a width of about 0.2 mile and has a least depth of 7m in this part.

Anchorage for small vessels with local knowledge can be taken in a depth of 13m, mud, about 0.8 mile from the head of the inlet.

Hoskins Islets, two in number, lie 0.8 mile NW of Hutton Point. They are located about 0.1 mile apart with drying rocks between. The passage lying between these islets and the shore to the SW is free of dangers, is about 0.4 mile wide, and has a least depth of 12m.

15.15 Hoskins Point (52˚32'N., 131˚34'W.), located about 1.5 miles WNW of Hutton Point, is the E entrance point of a large bight. Haswell Bay and De la Beche Inlet lie at the head of this inlet.

Perez Shoal, with a least depth of 4.8m and usually marked by kelp, lies in the approach to the above-mentioned bight, about 0.7 mile N of Hoskins Point. A shoal patch, with a depth of 14m, lies about 0.3 mile NE of Perez Shoal.

Haswell Bay is approached through a deep channel leading between Hoskins Point and Sivart Island, about 0.5 mile W. The bay narrows to a width of about 0.3 mile about 1.3 miles

SSW of Sivart Island. The fairway is further narrowed toward the head by an islet. This islet lies close off the SE shore to which it is connected by a drying flat.

A detached rock, with a least depth of 8.8m, lies about 0.5 mile S of the SW extremity of Sivart Island.

Sivart Rock, which dries 3m, lies about 0.4 mile SW of Sivart Island and a rock, with a depth of 4.6m, is located nearly midway between them.

Anchorage is available for small craft, in a depth of 12m, near the head of Haswell Bay. Larger vessels can anchor, in depths of 21 to 29m, about 0.4 mile SSW of Sivart Island.

The approach to De La Beche Inlet, which is located close WNW of Haswell Bay, is encumbered by drying and below-water rocks. Two islands lie close NE of the S entrance point. Entry should be attempted only by small craft with local knowledge.

Skittagetan Lagoon, lying on the NW side of the approach to this inlet, is very narrow and almost completely filled with drying rocks.

Juan Perez Sound—North Side

15.16 Ramsay Island (52˚34'N., 131˚23'W.) is densely wooded and fringed with drying reefs and detached rocks on its SE and E sides. Two bold hills, 411m high, rise near its S shore. Numerous above-water rocks are scattered on the drying reefs and dense masses of kelp that fringe the shores. The NW side of the island is indented and several islets and rocks lie close offshore. None of the indentations on this side of the island are suitable for anchorage except by small craft with local knowledge.

Kloo Rock, 11m high, lies about 0.5 mile ENE of Andrew Point, the N extremity of Ramsay Island. A rock, with a depth of less than 1.8m, lies almost midway between Kloo Rock and the point. A bare rock, 3m high, lies about 0.2 mile N of Andrew Point and a smaller rock, 1.2m high, is located close E of it.

A bare rock, 7m high, lies about 0.2 mile offshore, nearly midway between Andrew Point and Yadus Point, the E extremity of Ramsay Island. This rock is connected to the shore by a drying reef with several above-water rocks lying on it. Another rock, with a depth of 5.2m, lies about 0.3 mile NE of this bare rock.

Tatsung Rock, 13m high and bare, lies about 0.4 mile seaward of the SE shore of Ramsay Island. A rock, with a depth of 3m, lies between it and the shore, about 1 mile S of Yadus Point. Two smaller rocks lie about 0.3 mile WSW of Tatsung Rock.

An isolated rocky shoal, with a least depth of 10.4m, lies about 1.5 miles ENE of Yadus Point. This off-lying danger should be avoided especially in periods of heavy swell.

15.17 Ramsay Rocks (52˚34'N., 131˚28'W.) lie about 0.9 mile W of Ramsay Point, the W extremity of Ramsay Island. They consist of an above-water rock, 6.4m high, a rock, awash, and several rocks which dry 1.2 to 4.3m.

Hotspring Island, with House Island lying 0.4 mile ENE of it, is located nearly midway between Ramsay Island and Murchison Island. A spring lies on the S side of Hotspring Island and can easily be identified by a green mossy patch which can be seen for some distance. Steam generally hovers over this patch and the spring has a slight odor of sulphurated hydrogen. The water has a barely perceptible saline taste.

A group of five islets lies within 0.5 mile NE of Hotspring Island, to which it is connected by a drying flat. A drying reef extends about 0.2 mile W from the W side of Hotspring Island. Two rocks, 3.3m high, lie at its outer end and a detached rock, 1.5m high, lies close N of it.

Numerous drying rocks fringe the flats surrounding the above-mentioned islands and islets.

Murchison Island and Faraday Island, 144m and 224m high, are both wooded and lie NW of Ramsay Island. These islands are separated from each other by a passage which is completely blocked by above-water and drying rocks.

Ramsay Passage leads between Ramsay Island, on the SE side, and Ramsay Rocks, Hotspring Island, and House Island, on the NW. It is navigable, but care is necessary to avoid the reef which extends N from Ramsay Island and a rock, with a depth of 2.7m, lying about 0.2 mile S of the islets located on the E side of House Island. A shoal, with a depth of 10.1m, lies in the NE end of the fairway, about 1 mile W of Andrew Point.

15.18 Faraday Passage, lying between Faraday Island and Lyell Island, is not recommended except for small craft with local knowledge. Several dangers exist in the fairway.

Murchison Passage, lying between Murchison Island and Hotspring Island, is considered dangerous and is not recommended.

Sedgewick Bay, which indents the S side of Lyell Island, is deep and free of dangers, but is too exposed to afford anchorage, because S winds blow directly up Juan Perez Sound.

Bischof Islands, which consist of one large and several small islands, form a compact group located close off Richardson Point, the SW extremity of Lyell Island. They are all wooded and fronted by numerous rocks.

The largest island, located on the NW side of the group, has a conspicuous dome-shaped hill, 87m high, standing in its SW part.

The passage lying between Bischof Islands and Lyell Island has a least width of 0.3 mile. It is deep and free of dangers in the fairway, with the exception of a rock, with a depth of 2.1m, lying about 0.3 mile SE of the E entrance point of Beresford Inlet.

Beresford Inlet is very narrow and indents the S side of Lyell Island between Sedgwick Bay and Darwin Sound. The narrowest part of the inlet, about 1.5 miles within its entrance, is only about 90m wide and is completely blocked by above-water and drying rocks.

Entry into the inlet should be attempted only by small craft with local knowledge, and then only at or near HW.

Darwin Sound

15.19 Darwin Point (52˚34'N., 131˚37'W.) and Richardson Point, 1.5 miles ENE, form the S entrance to Darwin Sound. This sound leads between Moresby Island and Lyell Island from Juan Perez Sound to Laskeek Bay.

A light is shown from the shore, about 0.8 mile NW of Darwin Point.

The flood current sets up Darwin Sound from the S into the various inlets, and then E through Richardson and Logan Inlets. The ebb current sets through in the reverse manner. The currents in the fairway abreast Shuttle Island, on either side, attain a rate of 2 knots.

Stevenson Cove, lying on the W side of the sound close within the S entrance, is too deep and confined to provide satisfactory anchorage, except for small craft, near its head.

Kostan Inlet, lying 2.5 miles NE of the S entrance on the W side, has a least depth of 1.2m in its entrance and is suitable only for small craft.

Bigsby Inlet is entered S of Jeremiah Point, which is located 1.8 miles NNW of Kostan Inlet. It is about 0.4 mile wide and extends about 3 miles NW between high, precipitous, and wooded mountains. No dangers exist in the fairway, but the depths are too great for anchorage.

Two rocks, with least depths of 11m and 11.9m, lie about 0.4 mile NE and 0.5 mile ESE, respectively, of Finger Point.

Shuttle Island, 155m high and wooded, lies nearly in the middle of Darwin Sound with its SW extremity located 1.3 miles N of Finger Point. This island appears dome-shaped when approached from the S.

A patch of foul ground, with a rock which dries 0.6m in its S part, lies close off the S end of Shuttle Island. The S end of this foul ground lies about 0.2 mile ESE of a small islet located close off the SW point of Shuttle Island.

A rock, with a depth of 9.1m, lies about 0.2 mile off the SE extremity of the island.

A rock, 2.4m high, lies about 0.2 mile off the N extremity of Shuttle Island, with a rock, which dries 2.4m, located between it and the N extremity. A detached rock, with a depth of 9.1m, lies about 0.3 mile farther N.

Shuttle Passage, the fairway lying on the E side of Shuttle Island, is preferable, as it is the widest. This passage has a least depth of 17.3m located over a small bank in the middle of the S entrance.

Hoya Passage, lying on the W side of Shuttle Island, is narrowed to a width of about 0.3 mile at its S end by two rocks. These rocks, which have depths of 7m and 7.6m, lie about 0.2 mile off the W shore of Moresby Island. The fairway is further narrowed to a width of 0.2 mile at its N end by a rock, which dries 4m. This rock lies on the W side of Moresby Island, about 0.3 mile SSW of the N extremity of Shuttle Island. A rock, with a depth of 10.1m, lies about 0.1 mile off the W shore of Moresby Island.

15.20 The **Topping Islands** (52˚40'N., 131˚40'W.), two in number, are 73m and 59m high and have a passage leading between them. They lie on the E side of the fairway of Shuttle Passage, about 0.8 mile NW of the W entrance point of Lyell Bay. Foul ground lies between the easternmost island and the shore of Lyell Island. A rock, with a depth of 10.4m, lies about 0.2 mile NW of the westernmost island.

An unnamed island, 40m high, lies about 0.2 mile off the coast of Lyell Island, about 0.5 mile WNW of the westernmost of the Topping Islands. Drying rocks lie close NNW and SSE of this island.

Lyell Bay, lying on the W side of Lyell Island, is entered E of the S end of Shuttle Island. The bay extends about 0.8 mile from its entrance and is foul at its head. A scrub-covered islet, 6m high with a single stunted tree, lies about 0.3 mile NW of the W entrance point of the bay. A rock, with a depth of 5.5m and marked by kelp, lies about 0.2 mile NW of this islet. A shoal patch, with a depth of 9.4m, lies about 0.2 mile N of the W entrance point and another shoal, with a depth of 6.4m, lies 0.2 mile farther N.

The bay affords anchorage to small vessels up to 46m in length, in depths of 24 to 27m, about 0.5 mile from its head. However, the anchorage is not recommended during SE gales, because the wind draws strongly through it from Beresford Inlet.

Shuttle Reef lies in the middle of Darwin Sound with its NW extremity located 1.3 miles NNW of the N extremity of Shuttle Island. A rock, 0.9m high, lies at the NW end of this reef and another rock, which dries 2.1m, lies at its SE end. Several other drying and below-water rocks lie in the vicinity of the reef.

The passages leading on either side of Shuttle Reef are clear of dangers.

Echo Harbor, lying on the W side of Darwin Sound, is entered between Amur Point, located 2 miles NW of Shuttle Island, and Echo Point, 0.3 mile NW. The harbor extends 0.8 mile S and is backed by hills which rise to rugged mountains towards the head.

A rock, with a depth of 4.6m, lies in the outer part of the entrance to the harbor, about 0.2 mile N of Amur Point. The channel narrows within the entrance to a width of only about 90m between abrupt rocky shores. Farther S, the channel opens out into a basin, about 0.2 mile wide. This basin has depths up to 24m, decreasing gradually towards the head where a steep to drying mud flat fronts a narrow grassy beach.

Good anchorage is available for small craft in a depth of 14m, soft mud and good holding ground, near the head.

Gil Islet, 70m high and wooded, lies close off the W side of Darwin Sound, midway between Amur Point and Bent Tree Point, 1.5 miles NW. This islet is connected to the shore by a drying boulder reef. A drying shoal, with a small rock, lies about 0.3 mile SE of the islet.

15.21 Klunkwoi Bay is entered from the NW side of Darwin Sound between Bent Tree Point and Crescent Point, 1.5 miles N. McEchran Cove and Anna Inlet, which are separated by a peninsula about 0.6 mile wide, extend S from the head of this bay and are suitable only for small craft.

Klunkwoi Rocks, lying on the E side of the main approach to Klunkwoi Bay, consist of two drying rocks. They lie about 0.4 mile N of Bent Tree Point. The southernmost rock dries 0.9m and the northernmost rock dries 3m.

Morgan Rock lies SE of the S Klunkwoi Rocks, about 0.3 mile NE of Bent Tree Point. This rock has a depth of less than 1.8m. Another rock, which dries 1.5m, lies about 0.1 mile off the point. The passage leading between these two rocks, although deep, should not be attempted without local knowledge.

Commodore Rock, with a depth of less than 1.8m, lies about 0.1 mile off the W shore of Klunkwoi Bay, about 0.8 mile SW of the northernmost of Klunkwoi Rocks.

Crescent Inlet, entered from the NW end of Darwin Sound, lies between Crescent Point and Triumph Point, 0.8 mile N. It is about 4 miles long and trends NW. The inlet then turns

gradually W and then SW between steep wooded, mountains with considerable stretches of beach.

The inlet, for about 2.5 miles within the entrance, is about 0.5 mile wide and is deep and free of dangers. It narrows to a width of 0.1 mile farther W, where a least depth of 14.3m is available in the fairway. The inlet opens out into a basin, 0.3 mile wide, SW of this narrow part where anchorage can be taken in depths of 14 to 22m. The inlet turns abruptly SE about 1 mile from its head and diminishes in width with gradually decreasing depths. A mud flat, with a stream flowing through it, extends about 0.5 mile from the head. Small craft can anchor in a depth of 7m about 0.1 mile N of the mud flat.

Lyell Island—East Side

15.22 Agglomerate Island (52˚38'N., 131˚25'W.), 82m high and wooded, is the southernmost of a group of islands that is separated from the E coast of Lyell Island by Gogit Passage. Two scrub-covered islets lie within 0.2 mile of the S extremity of this island.

A bare rock, 6m high, lies about 0.4 mile ENE of the S extremity of the island with drying rocks located between. A detached shoal, with a depth of 11.9m, lies about 0.5 mile farther E.

Two detached shoal patches, with depths of 6.1m, lie close W and SW of Agglomerate Island. Another detached shoal patch, with a depth of 7.9m, lies in Gogit Passage and narrows the S end to a width of 0.3 mile.

The Kawas Islets, a group of five islets, extend, together with numerous rocks, between 0.2 mile and 0.9 mile N of Agglomerate Island. Tar Rock, 3m high and bare, lies about 0.6 mile N of the N end of this group. A rock, with a depth of less than 1.8m and marked by kelp, lies about 0.1 mile SW of Tar Rock. Two shoal patches, with depths of 7.9m and 9.7m, lie about 0.2 mile NE and 0.2 mile WSW, respectively, of the same rock.

The Tar Islands, a scattered group of islands and islets, lie between 0.8 mile and 2 miles N of Kawas Islets. Numerous rocks are located between and around them. The northernmost and southernmost islands of the group are wooded and 40m and 66m high, respectively.

Gogit Passage, entered between Murchison and Agglomerate Islands, leads for 4 miles to the N between the outer and inner islands off the E coast of Lyell Island. Although the passage carries a least depth of 11m in the fairway, it is not recommended, except to small vessels with local knowledge because of the numerous dangers.

Gogit Point, the E extremity of Lyell Island, is located about 1 mile NW of the N end of the Tar Islands.

The coast of Lyell Island from 1 mile SW of Gogit Point to Fuller Point, 1.8 miles N, is indented and fringed with rocky ledges and rocks on which masses of kelp are present during summer. Many islets lie on the drying reefs and ledges in several places. A small bay, which completely dries at LW, lies close N of Gogit Point.

Skaga Island, 34m high, has a few stunted trees and some scrub on its summit. It lies about 1.8 miles E of Gogit Point and is steep-to on all sides.

The Tuft Islets, three in number, are connected to one another by drying reefs. They lie parallel to the coast of Lyell Island with their N extremity located about 1 mile E of Fuller Point. The southernmost and tallest islet, is 40m high and has a few trees and some scrub on its summit; the other islets are bare. The passages lying on the W and SE sides of the group, are deep and free of dangers.

Laskeek Bay—Outer Island

15.23 Dodge Point (52˚44'N., 131˚29'W.), located 2.5 miles NW of Fuller Point, is the N extremity of Lyell Island.

A steep-to rock, with a depth of 6.7m and marked by kelp, and a shoal, with a depth of 11.6m, lie about 0.3 mile N and about 1.5 miles E, respectively, of Dodge Point.

A reef, in the middle of which lies a rock which dries 0.9m, is located between 0.5 mile and 0.8 mile NE of Dodge Point; another reef, which dries 5.5m, lies about 0.8 mile W of the point. A rock, which dries 5.5m, lies about 0.8 mile W of Dodge Point and 0.3 mile offshore.

Laskeek Bay is formed within Dodge Point and Vertical Point, 11 miles NNW. It is a wide indentation from which five inlets lead to the W. The southernmost, Atli Inlet, has two arms extending S; the two next to the N, Richardson Inlet and Logan Inlet, open out into the head of Darwin Sound and on either side of Tanu Island; and the two northernmost, Dana Inlet and Selwyn Inlet, are joined at their heads to W of Talunkwan Island by Dana Passage.

Kunga Island, 450m high and wooded, lies with its NE extremity located 3 miles NW of Dodge Point. It is a good landmark for making the entrance of Laskeek Bay. Its shores are fringed with low rocky reefs, which, in places, extend up to nearly 0.1 mile offshore. Detached rocks lie close off these reefs.

A detached rock, with a depth of 7.6m, lies about 0.6 mile SSE of the NE extremity of the island; a small rock lies about 0.1 mile off the middle of the N shore of the island.

Kelo Rocks, the highest of which is 5.5m high, extend about 0.3 mile from the SE extremity of Kunga Island. A ridge of foul ground, on the outer end of which is a rock with a depth of less than 1.8m, extends about 0.3 mile off the S side of the island, about 0.5 mile W of its SE extremity.

Titul Island, 72m, high and wooded, with low limestone cliffs, lies with its S extremity located about 0.2 mile N of the NW extremity of Kunga Island. A rock, which dries 5.8m, lies close off the S end of Titul Island.

Nob Rock lies about 0.9 mile NE of the NE extremity of Kunga Island. This rock is 5m high, bare, and steep-to. It has the appearance of a submarine on the surface from some directions.

15.24 The **Lost Islands** (52˚48'N., 131˚29'W.), lying about 3 miles NE of Kunga Island, consist of three islands, two of which are wooded, and several small islets and rocks; the largest island is 53m high. The only off-lying danger is a rock, which dries 0.3m, lying about 0.1 mile SE of the S extremity of the islands. Otherwise, deep depths lie on all sides up to a distance of 0.1 mile off its shores.

Reef Island lies about 3.5 miles N of Lost Islands. It is 174m high, wooded, and cliffy in places on the S side.

A chain of islets and rocks, above and below-water, the outermost of which is 1.5m high, extends about 0.6 mile SE

from the E end of the island. A group of islets and some rocks extend about 0.5 mile offshore, about midway between the S and E extremities of Reef Island; several shoal patches, with depths of 10.7 to 14m, lie within 0.7 mile SE and ESE of the above-mentioned group.

Two rocks, with depths of 10m and 3.7m, lie about 0.2 mile and 0.4 mile, respectively, SE of the S extremity of Reef Island.

The fairway lying N of Reef Island is deep and free of dangers. South Low Island, 38m high, lies about 1.5 miles NW of the W extremity of Reef Island. A rock, 3.7m high, lies close off the NW extremity of the island to which it is connected by a drying reef. Another rock, which dries 5.5m, lies close N of the NW part of the island.

Low Island, 69m high and wooded, with a rock which dries 5.8m close off its SE end, and another rock which dries 5.5m close off the middle of its E side, lies about 1.8 miles N of Reef Island. The W side of the island is steep-to.

An islet, from which a light is shown, lies about 0.1 mile NW of the NW extremity of Low Island; a drying ridge lies between the island and islet. The light is obscured by the high land and trees on some bearings.

Laskeek Bay

15.25 Atli Inlet (52˚42'N., 131˚35'W.), formed between the N side of Lyell Island and a peninsula which extends E from the NW end of the same island, is entered SE of Tsinga Point, the NE extremity of the above-mentioned peninsula. The inlet recedes about 3.5 miles W and terminates in Takelley Cove, which is deep and free of dangers. Depths within this inlet are great and its shores are generally steep-to.

An islet, 47m high and with a rock which dries 5.2m lying close SE, is located close off Ustas Point, the SE extremity of the aforementioned peninsula.

Two arms lead S from the S side of Atli Inlet; Powrivco Bay, the E arm, recedes about 1.3 miles S with a rock, with a depth of 6.7m and marked by kelp, lying about 0.3 mile off the E shore at its entrance. Foul ground extends up to about 0.2 mile off its shore near the head. Beljay Bay, the W arm, which is entered W of Powrivco Point, the W entrance point of Powrivco Bay, recedes about 1.3 miles SW and is deep and free of dangers.

Anchorage is available to vessels of moderate size, in a depth of 46m, about 0.3 mile from the head of Beljay Bay. Anchorage is also available for vessels of moderate size, in a depth of 42m, mud, about 0.2 mile from the head of Takelley Cove.

Anchorage in Powrivco Bay is not recommended as there is insufficient swinging space in the location where depths are suitable.

Richardson Inlet, entered between Tsinga Point and Kelo Rocks, is about 2.8 miles wide and leads about 5 miles W. It lies between Kunga Island and Tanu Island, on the N side, and the N side of the peninsula extending E from the NW end of Lyell Island, on the S. The shores of the inlet are generally steep-to and depths in the fairway are great.

Kul Rocks lie about 1 mile within the E entrance of the inlet and between 0.4 mile and 0.5 mile off the S shore. They consist of two large rocks, 19m and 10m high, and some drying rocks; the highest rock has a few stunted trees and some scrub on its summit.

Stansung Islets, lying close SW of Kul Rocks, extend about 0.3 mile N from the S shore of the inlet. The northernmost of these islets in 38m high with a shoal, with a depth of 10m, extending about 0.1 mile N from it. Dog Island, 105m high and wooded, the N extremity of which is almost in the middle of the inlet, lies about 0.4 mile WNW of the northernmost of Stansung Islets. The fairway lies to the N of these dangers.

A rock, 0.3m high, lies about 0.1 mile off the N shore of the inlet, about 1.3 miles W of Klue Point, the SE point of Tanu Island.

Klue Passage, lying between the E side of Tanu Island and the W side of Kunga Island, is about 0.5 mile wide between the dangers at the N end of the fairway. Tanu Rock, which dries 0.9m and from which foul ground marked by kelp extends about 0.2 mile N and S, lies on the NW side of the passage, about 1 mile N of Klue Point. A rocky ledge, with rocks located close off it, lies about 0.3 mile SW of Tanu Rock and extends up to about 0.1 mile off the shore of Tanu Island. A clearing, which marks the former site of the Indian village of Tanu, is situated close W of this ledge; some totem poles mark the site.

A shoal, with a depth of 11m, lies on the E side of the S entrance of Klue Passage, about 0.5 mile E of Klue Point. Farther N, on the E side of the passage and abreast Tanu Rock, a ridge of foul ground projects about 0.2 mile from the shore of Kunga Island.

15.26 Richardson Passage, lying between the SE side of Richardson Island and the NW side of Lyell Island, leads SW from the W end of Richardson Inlet into the N end of Darwin Sound and connects with the latter abreast Echo Harbor. The SW end of the passage narrows to a width about 0.2 mile between and the navigable width is further reduced to less than 0.1 mile by an islet and a rock, which dries 5.5m, lying NW of Lyell Point, the NW extremity of Lyell Island. The passage should be used only by small craft with local knowledge.

Tanu Passage, which leads between Richardson Island and Tanu Island, connects Richardson Inlet with Logan Inlet. It is deep and free of dangers in the fairway. The E shore of the passage lying between Tanu Point, the SW extremity of Tanu Island, and Stalkungi Cove, 1.8 miles NW, is fronted with boulders and stones.

Stalkungi Cove, which has depths of 7.3 to 31m, is free of dangers, but care is necessary in order to avoid a rock, which dries 5.2m, lying close S of the W entrance point.

Logan Inlet is formed between the N sides of Tanu Island and Richardson Island, to the S, and Tangil Peninsula, to the N. It leads 6 miles W and SW from the entrance and connects with Darwin Sound at a position between Triumph Point and Kwun Point, the NW extremity of Richardson Island.

Both Tanu Island and Richardson Island are bold and fringed by some good gravel beaches, though most are rocky. Tanu Island is 637m high and Richardson Island is 524m high.

Flower Pot Island, 78m high, lies near the S side of the entrance of Logan Inlet, with its N extremity located nearly 1.3 miles S of Porter Head. A rock, which dries 0.9m and a rock, with a depth of less than 1.8m, lie within 0.2 mile E of the island.

Logan Inlet is entered between the E end of Tangil Peninsula and the above-mentioned island. An islet, 28m high, from which a drying ledge extends about 0.1 mile NW, lies about 0.2 mile off the S shore of Logan Inlet, about 1.5 miles WSW of Flower Pot Island; otherwise, the inlet is free of dangers, with great depths, and is the recommended approach into the N part of Darwin Sound.

Vessels entering Logan Inlet should keep in mid-channel and pass N of Flower Pot Island.

Caution.—Tidal currents of considerable strength are encountered in the narrow part of Richardson Passage.

15.27 Dana Inlet, which lies N of Logan Inlet, is separated by Tangil Peninsula, on the S side, and Talunkwan Island, on the N. The inlet is 7 miles long and its shores are high and bold. The fairway is deep with gradual shoaling towards the entrance of Dana Passage at its W end.

Helmet Island (52˚49'N., 131˚40'W.), 111m high, lies nearly in the middle of the entrance of Dana Inlet. An islet, 56m high, lies close SE of it.

Care should be taken to avoid mistaking this island for Flower Pot Island. A narrow passage lying between Helmet Island and the islet located close SE is not visible from most approaches.

Dwight Rock, with a depth of 5.2m, and another rock, with a depth of 6.4m, lie on the N side of the entrance to the fairway, about 0.4 mile NW of Helmet Island. A large patch of kelp covers both rocks.

Vessels entering Dana Inlet should pass not more than 0.2 mile NW of Helmet Island and then keep in mid-channel throughout.

Dana Passage, lying between Moresby Island and the W side of Talunkwan Island, leads from Dana Inlet into the SW part of Selwyn Inlet. The fairway has a least width of about 90m and a least depth of 9.1m, located about 0.4 mile within the S entrance.

Beatrice Shoal, with a depth of 4m, lies nearly in mid-channel at the N end of Dana Passage. Shallow water extends S from this shoal to the shore

There are no dangers in the fairway, except for the above mentioned shoal, and the passage can be navigated by small vessels on a mid-channel course, until the S shore of Pacofi Bay begins to open up. At this time the E shore should be favored so as to pass safely E of Beatrice Shoal. The passage is more easily navigated at or near HW.

15.28 Selwyn Inlet (52˚51'N., 131˚41'W.) is entered between Heming Head, the E extremity of Talunkwan Island, and Has well Island, about 1.8 mile NW. It is the largest and most easily entered inlet of the Laskeek Bay group. This inlet extends about 6.5 miles W and then 5 miles NW before being blocked to deep-water navigation by Louise Narrows. When entering, care is necessary in order to avoid confusing the bold aspects of Heming Head with the similar features of Porter Head, 1.8 miles S.

Haswell Island, 59m high and wooded, lies 0.2 mile SE of a small promontory, which extends from the S shore of Louise Island and which forms the W side of Breaker Bay. A light is shown from a small tower standing on the S shore of the island.

Kingsway Rock, 10m high and bare, lies about 0.4 mile E of Haswell Island. A rock, with a depth of less than 1.8m and marked by kelp, and another rock, with a depth of 6.1m, lie about 0.1 mile ESE and 0.2 mile S, respectively, of Kingsway Rock.

Thurston Harbor, a small inlet about 1.5 miles long, is entered from the S side of Selwyn Inlet, about 2.5 miles W of Heming Head. The N side of the harbor is formed by a peninsula, 437m high, which projects E from the N extremity of Talunkwan Island. Thompson Point is the SE extremity of this peninsula. The entrance is deep and the depths shoal gradually toward the head, from which a drying flat extends about 0.3 mile.

Good anchorage may be taken, in a depth of 29m, mud, about 0.3 mile SE of Thompson Point, or in a depth of 24m about 0.2 mile SW of the same point; the latter anchorage is more suited for small vessels. Small craft can anchor in a depth of 18m about 0.5 mile W of Thompson Point. The holding ground in these anchorages is good, but strong gusts of wind or williwaws are prevalent during stormy weather.

Rockfish Harbor is a narrow bay lying on the N of Selwyn Inlet, about 4.5 miles within the entrance. It is formed by a projection of comparatively low land which terminates at Alfred Point, the E extremity. Foul ground fronts the E and S sides of the latter point and the shores of the harbor are fringed with sand and stony beaches. A rock, with a depth of less than 2m, has been reported (2000) to lie almost in midchannel, about 1.2 miles W of Alfred Point.

Anchorage can be taken by small vessels in depths of 16 to 20m about 0.8 mile within the entrance. There are five mooring buoys in the harbor.

15.29 Pacofi Bay, lying at the SW limit of Selwyn Inlet, is a square-shaped bay surrounded by high land. It is entered SE of Alford Point, about 6.5 miles within Haswell Island. McConnachie Shoal, lying nearly in the middle of the entrance to the bay, has a least depth of 5.2m and can be passed on either side. The passage lying to the N provides the safest approach. Numerous rocks and reefs border the S shore of the bay, but good anchorage off the N shore can be taken by small vessels with local knowledge in depths of 16 to 22m, mud.

The NW branch of Selwyn Inlet is about 5 miles long and is entered between Kilmington Point and Selwyn Point. It is deep in the fairway and for the most part steep-to. This branch, together with Carmichael Passage, leads into the SW side of Cumshewa Inlet. However, the channel lying in Carmichael Passage at Louise Narrows is blocked to ocean-going vessels as it is narrow and limited in depth.

Selwyn Rocks, which dry up to 2.1m, lie parallel to the E shore of the NW branch and are the main danger in this part of the inlet. Care is necessary when passing these rocks as the ebb currents sets down on them from the lagoons to the N and W.

Sewell Inlet is entered S of Sewell Point, about 3.5 miles within the NW branch of Selwyn Inlet. It recedes about 4 miles WSW and has an average width of 0.5 mile. The fairway as it approaches the head of the inlet is reduced to a width of 0.2 mile by a drying shingle spit projecting from a wooded point on the N shore. The inlet is generally deep and gradually shoals toward its head, but a shoal patch, with a depth of 6.4m, lies nearly in mid-channel, about 2.5 miles from the entrance and

must be avoided. The shores are fringed with beaches of stones and boulders.

Sewell Inlet affords anchorage in depths of 25 to 27m, mud, near the middle of the fairway, about 0.5 mile E of the wooded point located on the N side of the inlet and about 0.5 mile from its head.

Lagoon Inlet, entered about 1 mile N of Sewell Point, extends 2.5 miles WNW. Its shores are fringed with stone and boulder beaches. The inlet contracts from a width of 0.5 mile to a very narrow and obstructed passage about 1.5 miles within the entrance. This passage leads to a small lagoon that can only be entered by small craft at HW.

Lagoon Inlet affords anchorage in a depth of 46m, mud, about 0.5 mile within its entrance or in a depth of 29m, mud, within its W part and about 0.3 mile E of the ruins of an abandoned cannery.

Carmichael Passage, connecting Selwyn and Cumshewa Inlets, leads NNW between Moresby and Louise Islands. It has steep mountainous shores rising on both sides. The S end of the passage is restricted to small craft by Louise Narrows, which has a boat passage with a depth of 0.6m cut through its drying mudflats.

15.30 Vertical Point (52˚54'N., 131˚37'W.), the SE extremity of Louise Island, is a conspicuous limestone point rising nearly vertically from the sea. It is surrounded by rocks and foul ground, and bordered on the N side by Limestone Islands, two in number. These islands are separated from the point by a foul channel in which a tide race occurs during the S ebb current.

The channel lying between the southernmost of the Limestone Islands and South Low Island is encumbered with rocks and shoals. A passage, about 0.4 mile wide, is available to small vessels and passes close SE of South Low Island.

Skedans Bay, the S entrance point of which lies about 1 mile N of the Limestone Islands, has an island located on its S side and several shoals and drying patches in its approaches. Skedans Creek, a large creek with a conspicuous waterfall, flows into the head of the bay. The shores are bordered by extensive drying ledges with numerous rocks upon them. Skedans Point, the N entrance point of Skedans Bay, is bordered by reef and has an islet, 39m high, lying 0.3 mile SSE of it. A rock, 6.4m high, lies 0.4 mile SSW of the same point.

Skedans Islands (52˚54'N., 131˚37'W.) is a group of widely separated islands with foul ground extending between them. The northernmost and tallest island of the group is 61m high. There is a navigable channel leading between the westernmost island of the group and the island, 14m high, lying off Skedans Point. Local knowledge is required due to the dangers lying in the approach and the tide races which are formed within it.

Cumshewa Inlet

15.31 Cumshewa Head (53˚02'N., 131˚36'W.), located about 4 miles N of Skedans Point, forms the N entrance point of Cumshewa Inlet. Cumshewa Island, 4m high and conspicuous, lies about 0.2 mile SE of the head and forms a good landmark in the approach from the N and E.

Cumshewa Rocks, the main danger lying in the approach to Cumshewa Inlet, consist of several widely scattered drying rocks extending between 1 mile and 2 miles S of Cumshewa Head. The southernmost rock, which dries 6.7m, is usually uncovered to some extent, but the others cover and uncover regularly.

Several rocky patches, with a least depth of 7.9m, extend SW from Cumshewa Rocks to the S shore.

Kingui Island, located on the SW side of Cumshewa Head and joined to it by foul ground, lies on the N side of the channel leading into Cumshewa Inlet. It forms the southernmost danger at this side of the entrance. A light is shown from the W end of the island.

The channel leading into Cumshewa Inlet is narrow and tortuous, and large vessels are advised to use it at slack water only. The main approach, which can be made in daylight only, leads between Cumshewa Island and Cumshewa Rocks, to the S of Kingui Island, and then W between McLean Shoal and Haans Islet. The latter reach of the channel, which is only 0.2 mile wide between the dangers, is indicated by the light shown S of McCoy Cove.

Vessels with local knowledge and light draft can enter from the S with Haans Islands Light ahead, bearing 305˚. This course leads over the outer shoal patches and into the main channel.

Large vessels should enter Cumshewa Inlet only at slack water due to the narrow and tortuous nature of the channel. Great care is needed in passing between Haans Island and McLean Shoal to the S.

Fairbairn Shoals, a large area of foul ground, extends almost nearly across the entrance of Cumshewa Inlet and terminates in a dangerous shoal, with a depth of 3.3m, known as McLean Shoal. Vessels rounding the latter shoal must exercise extreme care so as not to be set down on this danger, or be carried on to the drying rocks lying S of Haans Island.

Thick kelp extends over Fairbairn Shoals, McLean Shoal, and Davies Shoal during summer and autumn.

15.32 Renner Point (53˚02'N., 131˚53'W.) is located on the S side of Cumshewa Inlet, about 10 miles within the entrance. It is high, bold, and forms the W extremity of a wide, steep headland which extends to Kitson Point, 3.5 miles E.

A logging camp is situated in a small bay lying 1.3 miles SW of Renner Point. A drying ledge extends 0.2 mile E from the W side of the bay; an islet, 11m high, and a smaller islet lie at the edge of this ledge. A rock, which dries 5.2m, lies 0.1 mile NW of the islets.

Duval Rock, with a depth of less than 1.8m, lies on the N side of the channel nearly 1 mile N of Renner Point. Vessels proceeding to Gillatt Arm should take care not to allow themselves to be set on to this rock by the flood current.

Gillatt Arm, entered at the W end of Cumshewa Inlet between Barge Point and the N shore, is divided by Oliver Islet at its entrance. This islet is wooded and should be passed on its N side. Within the arm, several drying rocks and gravel spits project from the shores, the most dangerous being the spit which extends 0.2 mile N from the S shore, about 0.5 mile WNW of Barge Point. Davey Islets, steep-to on their S side, lie on the S extremity of a gravel spit which dries and extends about 0.3 mile from the N shore; vessels should favor these islets when rounding the spit lying WNW of Barge Point.

Aero and Moresby Camp, formerly sites of large logging operations, have now been closed down. All facilities have been removed.

Although reported (1988) to be unoccupied, Moresby Camp, at the head of Gillatt Arm, is a supply base for logging camps situated S of Louise Narrows. An uncharted rock, with a depth of 5.5m, lies about 0.1 mile offshore in the approach to Moresby Camp.

Anchorage.—Anchorage in Cumshewa Inlet can be taken, in a depth of 27m, mud, by vessels with local knowledge. Vessels can also lie in all weather at Beattie Anchorage, about 1.3 miles SW of Renner Point.

Temporary anchorage, during good weather, can be taken, in depths of 18 to 25m, off the entrance to Dawson Cove.

Gillatt Arm affords anchorage, in a depth of 26.8m, mud, near mid-channel, about 0.5 mile from its head. A private mooring buoy is situated near the head of this arm.

15.33 Gray Point (53˚07'N., 131˚39'W.), located about 5 miles NNW of Cumshewa Head, is low and surrounded by a boulder beach with an islet lying on its the seaward end. Foul ground, marked by kelp, extends up to 1 mile from the point and the depths in this area are quite irregular.

Gray Bay, lying close W of Gray Point, is bordered by a sandy beach which extends up to 0.4 mile from the shore. Farther NW, Dogfish, Sheldons, and Copper Bays indent the coast, but numerous dangers lie in their approaches and local knowledge is required. A pillar rock, 19m high, is located on the NW shore of Copper Bay and is prominent.

Spit Point, the NE extremity of Moresby Island and the S entrance point of Skidegate Inlet, is low, wooded, and composed of sandy deposits that extend up to 2.5 miles N and NW of the point.

An aeronautical lighted beacon is situated about 0.5 mile ESE of Spit Point, at the airport. This light is shown during periods of low visibility on request to Prince Rupert Coast Guard Radio. Numerous prominent towers are also situated at Sandspit Airport.

A radiobeacon is situated about 3.8 miles SSE of Spit Point.

Caution.—Navigation within depths of 11m lying to the N of Cumshewa Head requires extreme care due to the possibility of uncharted shoals existing in this area.

Skidegate Inlet

15.34 Lawn Point (53˚26'N., 131˚55'W.) is located on the E side of Graham Island, about 12 miles NNW of Spit Point. It lies near the N entrance of the Skidegate Inlet Approach Channel. Lawn Point is generally green in appearance with a sandy cliff standing at its extremity. A large boulder, with a white conspicuous patch on it, lies close off the shore and about 0.5 mile S.

Double Mountain, rising to a height of 436m about 11 miles SSW of Lawn Point, consists of two wooded peaks which form a good landmark from the NW.

Mount Poole is a flat-topped hill, 491m high. It stands on the N end of Moresby Island, about 5 miles SW of Spit Point.

Slatechuck Mountain, with several peaks, rises to a height of 1,009m about 16 miles SW of Lawn Point. This mountain forms an excellent landmark in clear weather.

Dead Tree Point, the N entrance point of Skidegate Inlet, is located 4.5 miles S of Lawn Point. The land within this point is low and swampy.

The channel leading into Skidegate Inlet is entered over a bar, with a least depth of 5.8m, located about 1.5 miles ESE of Lawn Point. Two lighted beacons stand about 0.4 mile S of Lawn Point and from a range that leads over the bar to the N of the shallow spit extending from Spit Point.

The depth over the bar and the range line are subject to change. The channel lying S of Lawn Point is deep and marked by lighted buoys.

Bar Rocks, two in number, are located about 3 miles ENE of Dead Tree Point and do not always break. They can be dangerous to small vessels attempting to cut the channel at HW and care is advised.

Foul ground extends about 0.8 mile E of Dead Tree Point and lies on the W side of the channel.

15.35 Sandspit (53˚15'N., 131˚49'W.), situated on the E side of Shingle Bay and along the W shore of Spit Point, is a small town with an airport. There is a T-head wharf, 49m long, with a depth of 5.5m alongside. It is suitable for small vessels. Larger vessels can anchor in a depth of 44m about 0.3 mile W of the head of the wharf.

Vessels approaching Shingle Bay from the N should head for Gillatt Island, near the S shore, and then steer for the anchorages with the aid of a conspicuous aluminum water tower situated close SW of Sandspit.

Anchorage can be taken in the S part of the bay in a depth of 33m, mud, where there is good protection from S winds.

Torrens Island (53˚15'N., 131˚59'W.), wooded and conspicuous from the NE, lies on the W side of Skidegate Inlet, close off the SE end of Graham Island. A shoal, with a depth of 2.4m, lies close S of the W extremity of this island. A rock, which dries to 0.9m, lies close E of the same island. Jewell Island, lying 0.5 mile farther SSW, is also wooded, but it is lower and located closer to the shore.

Image Point, the SE extremity of Graham Island, is moderately high, wooded, and forms the E side of Skidgate Harbor.

Caution.—A submarine telephone cable lies between Image Point and Kwuna Point, about 1.8 miles SSE.

15.36 Skidegate Harbor (53˚15'N., 132˚01'W.) is entered between Image Point and Haida Point, 0.4 mile W. It is a small harbor serving the town of Skidegate and the mission, located 1.5 miles NE.

A rock, with a depth of less than 1.8m, lies 0.1 mile S of Haida Point. There is a small T-head pier situated at the head of the harbor. It has a depth of 10.5m alongside, but space is limited to all but small vessels. A conspicuous microwave tower stands on Haida Point.

Vessels approaching from the entrance of Skidegate Inlet should steer in a SW direction for the summit of Transit Island. They should then alter course to round Jewell Island and pass 0.5 mile off Haida Point.

Bearskin Bay is entered between Haida Point and Maude Island, 1.5 miles SW. It is the N part of the first section of Skidegate Inlet. The entrance and E part of this bay are open and generally free of dangers, but the W part is shoal and

encumbered with rocks. Several wooded islands, surrounded by drying reefs, lie off the N shore. The easternmost of these is Maple Island, which is small and 14m high.

Queen Charlotte (53˚15'N., 132˚05'W.) (World Port Index No. 19050), situated on the N shore of Bearskin Inlet, is the principal port in Skidgate Inlet. The harbor consists of a small craft basin formed by two piers. The E pier, Government Wharf, extends from Beattie Point. It has berthing head, 55m long, with depths of 4.9 to 7m alongside. A floating breakwater, 73m long, is situated at the W extremity and forms the S and E sides of the above basin.

When proceeding into the anchorage at Queen Charlotte from a position 0.5 mile S of Haida Point, vessels should steer for Smith Point and then round Maple Island.

The tides rise up to 7m at the port and vessels proceeding to the anchorage at HW should take care not to anchor in depths that will be shoal at LW.

Vessels of moderate draft can obtain anchorage, in depths of 7 to 9m, mud, about 0.2 mile S of Government Wharf. Larger vessels can obtain anchorage in the middle of Bearskin Bay, in depths of 18 to 29m, mud, about 0.5 mile SSW of Maple Island.

Caution.—Care should be observed by vessels approaching and leaving Government Wharf in order to avoid a drying rock lying about 0.1 mile E of the wharf.

15.37 **Alliford Bay** (53˚12'N., 131˚59'W.) lies on the S side of Skidegate Inlet, about 2 miles SSE of Haida Point. The entrance lies between Flowery Islet and Bush Island and has a least depth of 13.4m. The port facilities, which are situated 1 mile SSE of Kwuna Point, consist of an L-head pier. This pier has a berth, 91m long, with depths of 6.4 to 7.6m alongside. A wharf used by small craft and a small pier are situated close S of the berth.

Oliver Point is located at the head of the bay. Logging operations take place along the coast in this area and up to 0.5 mile SSE of Kwuna Point.

When proceeding to Alliford Bay from a position 0.5 mile S of Haida Point, vessels should steer to round Flowery Islet at 0.2 mile and then pass midway between Bush Island and the dangers lying to E. They should then round the island at 0.3 mile and steer for the anchorage.

Sheltered anchorage can be taken almost anywhere within Alliford Bay. The best position for large vessels lies in the middle of the bay about 0.4 mile NW of Oliver Point in a depth of 15m, mud. It was reported (1987) that this anchorage was fouled by old logging cables.

Maude Island, which separates the N part of Skidegate Inlet from its S part, is 418m high and wooded. It lies with Belle Point, the N extremity, located about 1.8 miles SW of Haida Point.

Robber Island, 8m high and from which foul ground extends about 0.2 mile NE, lies at the E extremity of Maude Island; a rock, which dries 1.2m, lies at the outer end of the above-mentioned foul ground.

Lina Island, 230m high and wooded, lies at the head of Bearskin Bay and is separated from the N shore by a passage which dries.

Maude Channel lies between Maude Island, to the S, and Lina Island, to the N. It is about 1 mile wide and leads from Bearskin Bay to Kagan Bay and then into Long Inlet.

Balch Islands, three in number, are 26 to 31m high and wooded. They lie at the E end of the channel. These islands, together with some rocks above and below-water, extend about 0.8 mile SE from the E extremity of Lina Island. A narrow but deep passage leads between them and the shore of Maude Island.

Several dangers lie up to 0.4 mile off the shore of Lina Island and it should not be approached within the same distance.

Fleury Island, 38m high, lies about 1 mile W of the southernmost Balch Island and close off the shore of Lina Island to which it is connected by a drying flat.

Two rocks, which dry 0.9 to 2.1m, lie about 0.2 mile S and 0.5 mile ESE, respectively, of Fleury Island. A shoal, with a least depth of 8.8m, lies about 0.5 mile WSW of the same island.

Withered Point, the S extremity of Lina Island, is the termination of a small promontory, 85m high. It is connected to the island by a narrow neck of land. A rock, which dries 0.6m, lies about 0.3 mile SE of Withered Point and shoals lie between it and the point. Good anchorage can be obtained in a depth of 22m about 0.6 mile SE of the point.

Caution.—Several submarine cables and submarine pipelines lie within Bearskin Bay.

15.38 Kagan Bay is entered at the W end of Maude Channel. The bay and the entrance are both encumbered by islands, rocks, and shoals. Access to the bay is confined to narrow passages suitable for only small vessels with local knowledge.

A passage, which is narrow and shoal at its N end, lies on the W sides of Maude Island and Sandilands Island. The passage is entered from the N at the SW end of Maude Channel and provides a convenient route to and from Skidegate Channel for small vessels with local knowledge. A rock, which dries 2.7m, lies on the NE side of the passage and is marked on its W side by a buoy.

Tree Islet, 11m high, lies at the SW end of Maude Channel, about 0.3 mile NW of the NW extremity of Maude Island; a rock, which dries 3m, lies midway between the islet and island. A rocky ledge, with a depth of 7.3m at its extremity, extends about 0.3 mile NW from Tree Islet; a rock, with a depth of 3.7m, lies on the middle of the extension of this rocky ledge.

Angle Island, 21m high, lies about 0.5 mile NW of Tree Islet and a shoal, with a depth of 3.3m, lies close S of it.

A channel, about 180m wide and with a depth of 31m, lies between the 3.3m shoal and the extremity of the rocky ledge extending from Tree Islet.

Claudet Island, 91m high, and Burnt Island, 76m high, together with several small islets form a chain that extends about 1.3 miles NW from Angle Island; the NW end of this chain lies about 0.7 mile SW of Dyer Point, the W extremity of Lina Island.

The passage lying between Angle Island and Claudet Island is blocked by a drying spit which extends ESE from the latter island. No passage exists between Claudet Island and Burnt Island.

Meyer Island, 0.3m high, lies about 0.9 mile WNW of Dyer Point. Noble Rock, which dries 5.8m, lies nearly midway between Myer Island and Burnt Island.

An extensive shoal, with depths of 7 to 11m, extends about 0.4 mile N and E from the N end of Angle Island; this shoal leaves a narrow passage between it and the shoals extending S from Withered Point.

Numerous islets and rocks, above and below-water, lie within an area enclosed by a line extending from the N end of the promontory on which is located Withered Point, to the N end of Burnt Island and then to Meyer Island; the area has not been completely surveyed.

Legace Island, 116m high, lies about 1 mile W of Burnt Island. A rock, with a depth of 2.4m, lies nearly 0.2 mile E of the NE extremity of the island. Danube Rock, which dries 1.5m, lies about 0.3 mile N of the same point.

Treble Island, 49m high, lies near the W shore of Kagan Bay, about 0.5 mile WNW of Legace Island. Several islets lie between it and the NW shore of the bay. Slatechuck Creek flows into the bay in the vicinity of these islets.

Christie Bay, with islands and rocks fronting its E and W entrance points, lies about 0.5 mile S of Treble Island. Canoe Point is the N extremity of the easternmost of these islands. The bay has not been completely surveyed.

Anchor Cove is a small indentation on the SW shore of Kagan Bay, about 1 mile S of Slatechuck Creek. Hallet Island, lying off the W shore of Kagan Bay, is located midway between the cove and the creek. Long Inlet is entered between Anthracite Point, on the S side of Anchor Cove, and Scalus Island, about 0.5 mile E. It has not been completely surveyed. The inlet trends S from the SW end of Kagan Bay and then W and NW to its termination, 4.8 miles from Anthracite Point.

Mount Seymour, 643m high, stands 1.8 miles NW of Anthracite Point.

Anchorage.—Small vessels can obtain anchorage, in depths of 11 to 16m, about 0.2 mile N of Treble Island, or in a depth of 9m within Anchor Cove and about 0.2 mile E of the head.

Good anchorage is also available, in a depth of 15m, about 0.6 mile SW of Burnt Island.

Skidegate Channel—Northeast Approaches

15.39 Flowery Islet (53˚13'N., 132˚00'W.), 3.4m high, lies near the middle of the entrance to the S part of the inlet, about 0.6 mile NW of Kwuna Point. Rocks, which dry 1.8 to 4.6m, lie close off the NW and E sides of this islet. A light is shown from the summit of the islet.

A detached rock, with a least depth of 9.1m, and a shoal patch, with a depth of 13.4m, lie about 0.4 mile NNW and 0.2 mile SSW, respectively, of Flowery Islet.

The passage lying between this islet and the extremity of the rocks extending from Kwuna Point is about 0.1 mile wide.

Bush Island, 2m high, lies at the N end of a narrow shoal, about 0.5 mile WSW of Kwuna Point. Bare Rocks, which dry 1.2 to 7.3m, extend about 0.3 mile S from Bush Island. These dangers can be passed on either side when entering Alliford Bay, but the passage on the N side is the most frequently used.

Transit Island, 99m high and wooded, forms the W side of Alliford Bay; this island when seen from the NE has a dome-shaped appearance. It is joined to the shore at the S end by a drying flat on which lie several islets.

A shoal, with a least depth of 2.7m, lies about 0.1 mile off the N end of Transit Island; shallow depths lie between the shoal and the island.

Lillihorn Island lies about 0.3 mile offshore, about 0.7 mile SW of the SW end of Transit Island. It is 38m high, wooded, and steep-to. A rock, which dries 2.8m, lies close NE of the island.

A small bay, which lies SE of Lillihorn Island, is encumbered by rocks, the outermost of which dries 2.1m.

15.40 Sandilands Island, 186m high in its SW part, lies close S of Maude Island. The N extremity of the island and the SW extremity of Maude Island are connected at LW. Two islets, about 0.6 mile apart, lie close off the NW side of the island. Between these islets, rocks extend up to about 0.3 mile offshore; the outermost rock dries 3.6m.

A small promontory, 78m high, extends from the SE extremity of Sandilands Island.

Shallow water extends nearly 0.2 mile offshore on the W side of Sandilands Island and a rock, with a depth of less than 1.8m, lies close off its SW extremity.

A rock, which dries 5.8m, lies about 0.2 mile off the S shore of Sandilands Island, about 0.6 mile ESE of its SW extremity; deep water lies N and S of this rock. A beacon stands on the above-mentioned drying rock. A mooring buoy is situated about 0.5 mile ESE of the E extremity of Sandilands Island.

Two shoals, with depths of 8.2m and 11.9m, lie in mid-channel about 0.4 mile S and 0.4 mile SSE, respectively, of the SW extremity of Sandilands Island.

Anchorage.—sheltered and clear of the tidal currents, can be obtained in a depth of 31m on the NE side of Sandilands Island, with the SE extremity of the island bearing 180˚ and the N extremity bearing 270˚.

South Bay, into which the Deena River flows, lies on the N side of Moresby Island, about 0.8 mile S of the S side of Sandilands Island. Drying flats extend about 0.4 mile off the mouth of the Deena River and an islet, 24m high, lies near the NW side of the drying flats. A similar flat extends about the same distance off the SE shore of South Bay.

Anchorage.—can be taken in the middle of South Bay in depths of 31 to 33m and about 0.4 mile offshore.

A light is shown from an islet lying about 0.8 mile ESE of the SE extremity of Sandilands Island. A booming ground is situated in South Bay, inshore from the light.

The approach to Skidegate Channel, S of Maude Island and Sandilands Island, is deep and free of dangers as far as South Bay. The channel leading to the W of the above islands is described in paragraph 16.19.

Lawn Point, previously described in paragraph 15.34, marks the S limit of the more or less lower land that extends N from Skidegate Inlet. The coast along this part of Graham Island forms a long easy bight and lacks the indentations and inlets so common to the rest of the Queen Charlotte Islands.

Dogfish Banks, extensive and extending a considerable distance offshore, lie between Lawn Point and Rose Point, 45 miles NNE. General depths of 5.5 to 9.1m lie between 4 miles

and 18 miles offshore and a shoal, with a depth of 3.7m, the position of which is doubtful lies about 5.5 miles ESE of Cape Ball.

The tidal currents attain a rate of 0.8 to 2 knots over Dogfish Banks. The flood current sets S and the ebb current sets N.

The Tlell River enters the sea about 11 miles N of Lawn Point. The river, from its mouth, runs nearly parallel to the coast for 3 miles and is then separated from the sea by a low swampy strip of land, about 0.5 mile wide. This land is of comparatively modern formation, being composed of sand and gravel, and partly covered with spruce trees.

Tlell is a small settlement situated about 2 miles S of the mouth of the Tlell River.

15.41 Cape Ball (53˚43'N., 131˚52'W.) is located about 6 miles NNE of the mouth of the Tlell River. Some conspicuous sand cliffs, 128m high, stand about 1 mile farther N. The tidal currents in the vicinity of the cape are irregular.

Drying gravel patches extend up to 2 miles E and SE from Cape Ball. Some large boulders, which dry 0.3 to 0.9m, lie on these patches.

Argonaut Hill, rising 21 miles NNE of Cape Ball, is flat-topped, 163m high, and densely wooded to its summit. A group of hills, 140 to 162m high, stand between 1.5 miles and 4 miles SW of Argonaut Hill. All these hills are conspicuous and are the first landmarks sighted when approaching this otherwise low and featureless portion of the coast from the E.

Fife Point, located 3.8 miles NNE of Argonaut Hill, can only be distinguished by Swan Hill, 70m high and thickly wooded, rising above it.

Rose Point, located 3 miles N of Fife Point, is described with its associated dangers in paragraph 17.17.